PLANTAE PAPUANAE ARCHBOLDIANAE, XVIII*

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This article, like the others of this series, is a miscellany. In it we have tried to bring together the misplaced odds and ends of families already named, in addition to our consideration of the Sterculiaceae, Solanaceae, and Cucurbitaceae. Owing to the official retirement of the senior author in June, 1948, this will be the last of these joint papers. For the convenience of those who are particularly interested in New Guinea flora we are adding an index of the families and genera included in this series.

TAXACEAE

Dacrydium xanthandrum Pilger, Bot. Jahrb. 69: 252. 1938.

In addition to the specimens cited by Pilger in the original description, we have the following.

NORTHEAST NEW GUINEA: Ogeramnang, *Clemens 6408,* May 1937, alt. 1750 m.; Yunzaing, *Clemens 6488,* June 1937, alt. 1350 m.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1694, 1709,* April 1930, alt. 950 m., rare in rain-forest (tree up to 25 m. high). Closely allied but perhaps not conspecific with these are the following two specimens from the Solomon Islands: Ysabel: Mt. Sasari, *Brass 3264* (♂), December 1932, alt. 1100 m., found only on summits of highest peaks (thick boled tree seldom more than 15 m. tall; branches spreading, upturned). Guadalcanal: Uulolo, Tutuve Mt., *Kajewski 2652,* May 1931, alt. 1200 m., rare, in gold-mining country.

CARYOPHYLLACEAE

Sagina monticola sp. nov.

Herba perennis; caulibus vetustioribus glabris, novellis puberulo-glanduloso-pilosulis (pilis tenuissimis), breviter sarmentosis vel decumbentibus ad nodos saepe radicantibus et demum plantas novellis evolventibus apice floriferis; foliis inferioribus subcarnosulis subrosulatis, linearibus, mucronatis, usque 3.5 cm. longis, vix 5 mm. latis, basi (2.5 mm. latis) late vaginantibus, margine et subtus costa distanter ciliolatis, supra planis, subtus convexiusculis, utrinque minute pustulatis; foliis superioribus similibus sed minoribus, 3–5 mm. longis; pedicellis tenuibus, 0.6–2 cm. longis, consperse glanduloso-puberulis; floribus pentameris; sepalis glanduloso-puberulis, ellipticis, 3–4 mm. longis, 2 mm. latis, apice late obtusis, e basi 3-nerviis, nervis ramosis; petalis albis, 4–5 mm. longis, oblongis, apice rotundatis; staminibus 10, filamentis exterioribus 2.5 mm. longis, basi glandula insidentibus, interioribus paullo brevioribus eglandulosis; ovario ovoideo 3 mm. longo, 2 mm. lato; stylis 5, ex apice ad medium papilliferis; capsulis 4 mm. longis; seminibus 0.6–0.8 mm. longis, oblique subrotundatis, extus minute muriculatis.

* Botanical results of the Richard Archbold Expeditions. See Jour. Arnold Arb. 27: 193–233. 1946.

NETHERLANDS NEW GUINEA: Bele River, 18 km. northeast of Lake Habbema, *Brass 11569* (TYPE), November 1938, alt. 2350 m., rooting in earthy niches on a sparsely vegetated limestone precipice (flowers white).

This species was published, Jour. Arnold Arb. 23: 388. 1942, as *Sagina echinosperma* Hayata. Since the war, Dr. Hiroshi Hara, who has done some work on this group, called our attention to the fact that the New Guinean plant is clearly distinct from the Formosan plant which has been proved on further study to be *S. japonica* (Sw.) Ohwi, common in Japan. The latter has short (less than 2 mm. long) petals, smooth leaves, and 5–8 stamens. The habit of this plant is rather distinctive. It suggests a slender short caudex-like stem covered by relatively long leaves with overlapping very much broadened bases, from this stem or stem-like base slender decumbent branches appear to grow, and these eventually develop new plants at the nodes, but may also terminate in an inflorescence. Nothing in the duplicates indicates a tangled mass of branches such as one expects to see in *Sagina*.

AQUIFOLIACEAE

Ilex malaccensis Loesener, Nov. Act. Abh. Leop.-Carol. Akad. Naturf. (Monog. Aquifol.) 78: 432. 1901, var. **stenura** var. nov.

A specie recedit foliis oblongis, 10–17 cm. longis, 2.4–5 cm. latis (uno 8.2 × 2.5 cm.), basi obtusis vel cuneatis, apice caudato-acuminatis, acumine 1.5–2 cm. longo, basi 4 mm. lato, apicem versus ± 1.5 mm. lato, obtuso.

BRITISH NEW GUINEA: Central Division, Mafulu, *Brass 5175* (TYPE of var.), Sept.-Nov. 1933, alt. 1250 m., oak forest undergrowth, common (slender tree or bush 3–4 m. high; small, fleshy purple-black fruit).

Although we have no material with which to compare this collection, according to the description in Loesener's monograph of the Aquifoliaceae it seems to be very close to *Ilex malaccensis* Loes. The fruits are young, but in the one which was cut open there were apparently 14 locules. It differs from the description of the species chiefly in the narrower leaves with longer acumen.

STERCULIACEAE

In the Sterculiaceae of these collections we have the usual widely distributed species of *Abroma, Kleinhovia, Commersonia, Melochia, Helicteres* and *Heritiera*. In addition to the common *Heritiera littoralis,* there is a sterile specimen collected near Bernhard Camp, at 400 m. altitude, a specimen of *Pterygota Forbesii,* a sterile collection of *Pterocymbium,* and one of *Tarrietia*. The last genus does not appear in our Index for New Guinean plants, and as far as we know this is the first record of its occurrence in New Guinea. The specimen was determined at Buitenzorg as *Tarrietia Riedeliana* Oliv. Other species of interest are recorded below.

Sterculia Clemensiae sp. nov.

Arbor magna, trunco 37–45 cm. diametro (fide M. S. Clemens); ramulis 10–15 cm. diam., rugosis, novellis dense pubescentibus; foliorum petiolis 4–7 cm. longis, circiter 1/3 longitudinem laminae aequantibus dense ad-

presso-tomentosis; laminis ± orbicularibus (omnibus fractis), 12–20 cm. longis latisque, basi cordatis, sinu 0.5–2 cm. alto, 2–4 cm. lato, apice non viso, supra primum consperse stellato-pilosulis deinde costa nervisque pilosulis ceterum glabris, subtus ± dense pilosulis, pilis stellatis et interdum simplicibus intermixtis, basi 7-nerviis, praeter basales nervis lateralibus utrinsecus ± 5 (foliis fractis) angulo ± 45° impositis utrinque prominulis, venis transversis perspicuis, reticulatione sub lente utrinque manifestis; inflorescentiis e ramulis sub apice orientibus, ± 20 cm. longis, dense stellato-tomentellis, pedunculo 3–5 cm., ramis 3–5 cm., pedicellis 2–3 mm. longis; floribus parvis, tantum ♂ visis; calyce campanulato in sicco 3 mm. longo, intus dense hirtello, tubo 2 mm., lobis 1 mm. longis triangularibus acutis; columna ± 1.4 mm. longa, apice penicillata, antheris 5 parallelis in annulum dispositis; mericarpio immaturo, subellipsoideo, 3.5 × 2.5 × 2 cm., apice subapplanato subapiculato haud producto, extus primum stellato-pubescente deinde glabrato, intus ± dense stellato-hirtello; seminibus immaturis atro-fuscis.

NORTHEAST NEW GUINEA: Morobe District, Lae, *Clemens 10452* (TYPE), *10466,* July 1939, in brush near Busu River (big tree, trunk 15 to 18 inches in diameter; inflorescence brick-red-purple; fruits pale yellowish green).

Sterculia Clemensiae appears to belong in the same group with *S. comosa* Wall. Both have very small flowers. The latter however has a shorter smoother pubescence on the lower surface of the leaves giving them a grayish color. It has been reported from Amboina, the Celebes, and Key Islands.

Sterculia oncinocarpa F. v. Muell. & Forbes, Victoria Nat. 3: 48. 1886; Mildbr. Bot. Jahrb. 62: 355. 1929; vel aff.

NETHERLANDS NEW GUINEA: Bernhard Camp, Idenburg River, *Brass & Versteegh 14102,* April 1939, alt. 70 m., occasional in primary forest on edge of flood plain (tree about 30 m. high, 58 cm. diameter; bark 12 mm. thick, black-brown, fairly smooth; wood light brown; flowers yellow).

BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, *Brass 7348,* July 1936, alt. 100 m., common canopy tree of lower clayey ridges (± 30 m. high; trunk buttressed and covered with gray lenticellate bark; leaves crowded at the apex of the thickened branchlets; fruit close below the leaves on peduncles 20–25 cm. long).

Among the Papuasian species these two collections are closest to this species and possibly identical with it. In any case it seems best to point out the differences or variations. Mr. A. W. Jessep, Director of the Melbourne Botanic Gardens and National Herbarium, very kindly sent us a photograph of the type and a fragment of the leaf for comparison. The texture of the leaf is very similar to that of *Brass 7348* but the pubescence is much finer and sparser. The stellations are minute. The rays of those on the Brass specimen are at least five times as long as those in the Forbes collection. Again, in the original diagnosis the fruitlet is described as being about four times longer than broad; in the photograph, however, there is one scarcely twice as long as broad. The fruitlet of the Brass collection is approximately 8 × 5 × 4.5 cm., the seeds are olive brown and the surface is reticulate (the other seeds of *Sterculia* species in the herbarium are black; possibly these are not ripe). The collection, *Brass*

& Versteegh 14102, has only very young leaves and flowers. Most of the inflorescences (up to 20 cm. long) appear to be sessile or almost so at the apices of short shoots 3–6.5 cm. long; rhachis, branches, branchlets, pedicels, and flowers are all spreading-hirtellous with hairs ± 1 mm. long; ♂ FLOWER: calyx-tube 3 mm. long, puberulous inside, lobes 1.3 mm. long, ovate, acute, finely pubescent on the upper surface; staminal column 2 mm. long, anthers 5 (4–6), annular; ♀ FLOWER: larger than the staminate and terminal on the branches; calyx-tube 4 mm. and lobes 1–1.5 mm. long, pubescent as in the ♂ flower; ovary 3-lobed, ± 1.5 mm. long, densely hairy, style 1 mm. long, pubescent, stigma capitate. This collection is myrmecophilous.

Sterculia Shillinglawii F. v. Muell. Australas. Jour. Pharm. (Feb.) 1887.
Sterculia Conwentzii K. Schum. Bot. Jahrb. 9: 208. (Nov.) 1887.
Sterculia multinervia Rech. Rep. Sp. Nov. 9: 184. 1912.

BRITISH NEW GUINEA: Lower Fly River, east bank opposite Sturt Island, *Brass 8089,* Oct. 1936, rain forest, on outer ridges (common canopy tree; stem with well developed plank-buttresses; bark gray-brown; flowers yellow-brown, galled flowers pink; fruit red, mericarps narrow and recurved).

NORTHEAST NEW GUINEA: vicinity of Kajabit, Markham Valley, *Clemens 10557, 10857bis,* August 1939, alt. ± 240 m.

BISMARCK ARCHIPELAGO: New Britain: near Blanche Bay, *Parkinson* (TYPE of *S. Shillinglawii*); vicinity of Rabaul, *Kanehira 3994, Waterhouse 424* (large spreading tree, excellent for shade; white flowers; striking red seeds in open fruit).

SOLOMON ISLANDS: Guadalcanal: Berande River, *Kajewski 2411,* sea level, rain forest (a medium-sized buttressed tree; pod red outside, salmon-colored inside, seeds green. A person recovering from a long illness, such as fever, is given a tonic made from the bark of this tree pounded and mixed with water). San Cristoval: Wainamura, *Brass 2843,* Sept. 1932, lowland rain forests, not common (small tree with thick, gray, fairly smooth bark; leaves stiff, glaucous below, midrib and main nerves brown on lower surface; flower yellowish green with red throat, the narrow lobes arched and inflexed).

Mildbraed, in his work on the Sterculiaceae of New Guinea, Bot. Jahrb. 62: 347–367, 1929, hesitated to reduce *S. Conwentzii* K. Schum to *S. Shillinglawii* F. v. Muell., although admitting *S. multinervia* Rech. as a synonym. We are indebted to Mr. Jessep for a photograph and fragment of the type of Mueller's species, the isotype of K. Schumann's species at the Kew Herbarium has been examined by the senior author. There seems to be no doubt that *S. Shillinglawii* is the oldest name for this apparently fairly widespread species. Needless to say, there is some variation in the specimens, but not enough to be of specific value.

Sterculia porphyroclada sp. nov.

Arbor ± 20 m. alta; trunco ± 20 cm. diam.; ramulis novellis 2–2.5 mm. diam., purpureis in sicco longitudinaliter ruguloso-sulcatis, annotinis 4.5 mm. diam., lenticellatis rimosis, sparsim patenti-hirsutis; foliorum petiolis 1.5–6.2 cm. longis, circiter 1/4 longitudinem laminae aequantibus patenti-hirsutis; laminis oblongo-ellipticis, 10–24 cm. longis, 5–11.5 cm. latis, basi paululo retusis vel rotundatis vel obtusis, apice acuminatis, acumine 1–2 cm. longo, obtusiusculo, supra costa et nervis ± dense stellato-pilosis ceterum fere glabris, subtus stellato-pilosis, ima basi tri-

nerviis (in foliis majoribus subquinquenerviis), nervis lateralibus utrinsecus 10–13 marginem versus arcuatim conjunctis, supra distincte manifestis, subtus prominentibus, venis transversis prominulis, reticulatione ultima supra densissima sub lente distincte manifesta, subtus haud conspicua; inflorescentiis non visis; axi in fructu ± 5 cm. longo, 4 mm. diametro; mericarpiis ± 9 cm. longis, 2 cm. diametro, subfalcatis, apicem versus paulo angustatis, apice acutiusculis, extus brevissime et densissime ferrugineo-stellato-tomentellis, intus stellato-pilosulis; seminibus pluribus (8 in uno maricarpio) in sicco atrobrunneis, circiter 15 mm. longis et 7–9 mm. crassis.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12765* (TYPE), February 1939, alt. 1200 m., occasional in rain-forest (subsidiary-tree 20 m. high and 20 cm. diameter; fruit orange-red, seeds white).

The species appears to be related to *S. malacophylla* K. Schum. It has longish somewhat stiff hairs on the branchlets and petioles, and 4-pronged stellate hairs on the lower surface of the leaves; however, the hairs are not at all crowded and could scarcely be regarded as subtomentose, also they are harsh to the touch rather than soft; the bark on the younger branchlets is dark purple, not yellowish gray; and the leaves have 10–13 pairs of veins as compared with 7–8 in *S. malacophylla* K. Schum.

Sterculia ampla Baker f. Jour. Bot. 61. Suppl.: 5. 1923; White, Jour. Arnold Arb. 10: 240. 1929.

Sterculia coggygria Mildbraed, Bot. Jahrb. 62: 357. 1929.

BRITISH NEW GUINEA: Western Division: Oriomo River, Wuroi, *Brass 5785,* Jan.-Mar. 1934, riverine rain-forest (common erect sparsely branched tree up to about 15 m. high; leaves clustered at branch tips; large red fruit, seeds black); Lake Daviumbu, Middle Fly River, *Brass 7711, 7785,* common in rain-forest (substage or lesser canopy tree; flowers brown-green).

In our herbarium is an isotype of *S. coggygria* Mildbr. which we are unable to distinguish from the earlier described *S. ampla* Baker f. Again, judging by the specimens *Kanehira & Hatusima 11884, 12395,* we are inclined to believe that *S. gigantifolia* sensu Kaneh. & Hatus. in Bot. Mag. Tokyo 55: 389. 1941, also belongs here. The stipules are somewhat larger and coarser than in the Brass collections, and the pubescence varies. It might be worth noting that the inflorescence of *Kanehira & Hatusima 11884* is 60 cm. long.

Sterculia quadrifida R. Brown in Benn. Pl. Jav. Rar. 233. 1844; F. M. Bailey, Queensl. Fl. 1: 136. 1899; Queensl. Agric. Jour. 22: 147. 1909; C. T. White, Proc. Roy. Soc. Queensl. 33: 152. 1921.

BRITISH NEW GUINEA: Western Division: Mabaduan, *Brass 6480, 6503,* common in monsoon forests on granite slopes (tree to 10 m. high; branches flatly spreading; bark rough, brown; fruit generally 4-lobed, red, somewhat rugose; seeds a beautiful velvety-black); Wassi Kussa River, Tarara, *Brass 8414,* common in dry brushy rain-forests (tree 14–15 m. high; bark gray, lenticellate, somewhat scaly; leaves gray underneath; fruit orange-red, seeds velvety-black).

Previously reported by F. M. Bailey from Boku, Papua. These specimens are a reasonably good match for *Brass 2378* collected on the Mow-

bray River, Queensland. All are finely and closely velvety-tomentose on the under surface of the leaves. In the Queensland collection the fruit is less pointed at the base, a minor difference. There is considerable variation in the length and breadth of the leaves, those of *Brass 8414* are oblong-lanceolate, 7.5–16 cm. long, 3.2–5.3 cm. wide; in the other specimens the leaves are more nearly elliptic or slightly obovate, 5.5–10 cm. long, and 3.5–6 cm. wide.

Keraudrenia J. Gay

Keraudrenia corollata (Steetz) Domin, Bibl. Bot. 22(Heft 89[5]): 974. 1928.
Seringia corollata Steetz in Lehm. Pl. Preiss. 2: 350. 1848.

NETHERLANDS NEW GUINEA: Waren, 60 miles south of Manokwari, *Kanehira & Hatusima 12963, 13205,* March, 1940, alt. 200–300 m., on grassy hill (plant 1 m. tall; flower pink).

This plant agrees very well with a number of Queensland collections placed in this species. *Keraudrenia lanceolata* has been reported once from northern New Guinea, but this seems to be the first record of this species from the island.

PASSIFLORACEAE

Passiflora Linnaeus

Passiflora moluccana Blume Bijdr. Fl. Nederl. Ind. 938. 1826; DC. Prodr. 3: 323. 1828; Rumphia 1: 169. *t. 51.* 1835; Koorders Exkursionsfl. Java 2: 638. 1912; vel aff.

SOLOMON ISLANDS: Bougainville: Kugumaru, Buin, *Kajewski 1913,* July 1930, alt. 150 m., rain forest (common vine on rain forest trees; fruit green, 4.2 cm. long, 4 cm. diameter); Koniguru, Buin, *Kajewski 2076,* October 1930, alt. 950 m., rain forest (vine; fruit globular, 3.9 cm. diameter, slightly flattened top and bottom). Ysabel: Tasia, *Brass 3283,* Dec. 1932, coastal rain forests (large climber; leaves stiff, with pale nerves, glands pale brown; immature fruit about 2.5 cm. diameter, green).

These specimens differ from the description and plate of this species in having somewhat larger leaves (12–17 cm. long, 5.5–8.5 cm. wide) and globose fruits. Since we have no flowering material it seems best to place it here for the present. *Passiflora moluccana* Bl. is a native of the Moluccas.

Hollrungia K. Schumann

Hollrungia aurantioides K. Schum. Bot. Jahrb. 9: 212. 1888; Merr. & Perry, Jour. Arnold Arb. 24: 210. 1943, op. cit. 29: 160. 1948.

BRITISH NEW GUINEA: Central Division, Mafulu, *Brass 5239,* Sept.-Nov. 1933, alt. 1250 m., on edge of forest clearing, only one example seen (large woody climber; leaves smooth and shining; flowers yellow-green; fruit immature).

Our duplicate specimen had lost all its flowers, but it was finally named with the aid of some flowers from the first set in New York. Now we have one or two collections from each political division of New Guinea, indicating the plant is probably wide-spread over the island, but apparently not plentiful anywhere.

GENTIANACEAE

Nymphoides Hill.

Nymphoides hydrocharoides (F. v. Muell.) O. Ktze. Rev. Gen. 2: 429. 1891 (as *Nymphodes hydrocharodes*).

Villarsia hydrocharoides F. v. Muell. Fragm. Phytogr. Austr. 6: 139. 1868.

Limnanthemum hydrocharoides F. v. Muell. ex Bentham Fl. Austr. 4: 380. 1868; F. M. Bailey, Queensl. Fl. 3: 1030. 1900.

BRITISH NEW GUINEA: Wuroi, Oriomo River, *Brass 5871,* Jan.-Mar. 1934, alt. 20 m., plentiful in small pools of a little creek on savannah (leaves reddish underneath; flowers orange-colored).

Through the co-operation of Mr. C. T. White of Brisbane, a duplicate of *Brass 5871* was sent to Melbourne, where it was checked with the type of Mueller's species by Mr. J. H. Willis, who found it to match very well indeed. This appears to be the first record of this Australian species from New Guinea. Its most striking character is found in the comparatively large and minutely pubescent seeds.

Nymphoides parvifolium (Griseb.) O. Ktze. Rev. Gen. 2: 429. 1891 (as *Nymphodes parvifolium*).

Limnanthemum parvifolium Griseb. in DC. Prodr. 9: 141. 1845; F. M. Bailey, Queensl. Fl. 3: 1029. 1900.

BRITISH NEW GUINEA: Mabaduan, *Brass 6534,* April 1936, common in shallow grassy rain pools in savannah forests (very small white flowers). Previously reported from India, Siam, Ceylon, the Malay Peninsula, and Queensland.

SOLANACEAE

In the Solanaceae, as in so many other instances, we have very little authentic material for comparison. Many of our collections differed so widely from the descriptions of the species already reported for that island that we have described them as new. Following the latest work on the Solanaceae by Mr. C. V. Morton, Contrib. U. S. National Herbarium, 29: 54, 55. 1944, we have treated *Lycianthes* as a section of the genus *Solanum*.

Solanum leptacanthum sp. nov.

Frutex ± 1 m. altus; ramulis teretibus, 2–2.5 mm. diametro, consperse stellato-pubescentibus, sparsim aculeatis, aculeis tenuissimis, usque 7 mm. longis basim versus 0.5 mm. diametro, internodiis 2.5–3 cm. longis; foliis alternis membranaceis, lanceolatis, 9–15 cm. longis, 2.5–4.5 cm. latis, apice acuminatis, acumine ± 2 cm. longo, basi interdum inconspicue inaequilateralibus interdum valde obliquis, anguste cuneatis, margine subintegris vel undulatis vel leviter angulatis, nonnumquam non profunde lobatis, utrinque costa et interdum venis primariis aculeatis, aculeis gracilibus 2–8 mm. longis (2–14 per costam), supra fere glabris et olivaceis, subtus leviter pallidioribus et consperse stellato-pubescentibus, venis primariis utrinsecus 5–7 utrinque manifestis, oblique adscendentibus deinde arcuatis, secundariis ± manifestis; petiolo 4–9 mm. longo, sparsim stellato-pubescente; inflorescentiis ± 20-floris, minute stellato-pubescentibus, pedunculo 3–10 mm. longo, rhachi brevi, pedicellis 7(–30 in fructu interdum basi aculeatis) mm. longis; calyce cupulari, 1 mm. longo, 5-dentato, dentibus

minutis; corolla 6 mm. longa, tubo 1 mm. longo, lobis lanceolatis, intus glabris; filamentis brevissimis, antheris 4 mm. longis, anguste lanceolatis, apicem versus angustatis, poris apicalibus minimis; ovario ovoideo, 1 mm. longo, stylo gracili, 4 mm. longo; fructibus ovoideis, 1.8 cm. longis, 1.5 cm. diametro, seminibus ± 20, oblique reniformibus, 6 × 4.5 × 0.6 mm., minute reticulatis.

BRITISH NEW GUINEA: Central Division, Ononge Road, Dieni, *Brass 3814* (TYPE), April 1933, alt. 500 m., in rain forest (one plant seen; shrub 1 m. with terminal flat-spreading branches; flowers pink; fruit broadly ovoid, orange-yellow, ± 1.8 cm. long, 1.5 cm. diameter).

In addition to the above cited collection, we have a specimen from Ihu, Vailala River, *Brass 972*, which agrees very closely with the type except that the calyx has very definite lobes and is about 3 mm. long, the fruit is very much like that described above in color and size of seeds, the plant is described as a weed in rain forest clearings. Unfortunately there are not very many flowers on any of the specimens, in fact only about a single open one on each, and several buds on the type, hence it is difficult to estimate the amount of variation in the character of the calyx.

Solanum oligolobum sp. nov.

Frutex magnus; ramulis teretibus 3–6 mm. diametro, aculeatis, primum stellato-tomentosis demum paullo glabratis, pilis sessilibus vel stipitatis apice stellatis grossis, flavidis, aculeis ± crebris, rectis, 5–10 mm. longis basi 1–2 mm. latis, internodiis 2.5–5.5 cm. longis; foliis alternis vel superioribus plerumque geminatis vel parum inter se distantibus, paullo inaequalibus, tenuiter chartaceis fragilibus, ambitu lanceolatis, apice acutis vel sensim acuminatis, basi inaequilateralibus, obtusis, margine grosse 3–4-lobatis (lobis obtusis vel acutis interdum mucronatis, sinubus plerumque late subrotundatis in foliis minorum fere planis), utrinque costa et venis primariis (utrinsecus ± 6 inconspicuis) aculeatis (aculeis paucis usque 1.5 cm. longis), supra ± dense tomentosis (pilis stellatis stipitatis sessilibusque) interdum consperse glandularibus, atro-olivaceis, subtus dense tomentosis et glandularibus paullo pallidioribus, lamina majorum 11–21 cm. longa, 4–13 cm. lata, petiolo 3–5 cm. longo, tomentoso et aculeato (aculeis usque 2.2 cm. longis), minorum 5–13 cm. longa, 2–5.5 cm. lata, petiolo 1.5–2 cm. longo; inflorescentiis dense tomentosis, primum fere terminalibus, serius in latus coactis, ± 12-floris; pedunculo 2–10 mm. longo, rhachibus simplicibus vel furcatis, pedicellis 1 (–1.5 in fructu) cm. longis interdum aculeatis, aculeis paucis usque 4 mm. longis vel nullis; calyce 3.5–4 mm. longo, campanulato, 5-lobato, lobis in dentes lineari-subulatos vix 1.5 mm. longos abrupte angustatis; corolla violacea, rostrata, tubo ± 2 mm. longo, lobis 8–9 mm. longis, extus margine lato excepto stellato-tomentosis; staminibus 5 (interdum 6), circiter 1 mm. corollae basim supra insertis, filamentis vix 2 mm. longis, antheris 3–3.5 mm. longis, apicem versus angustatis; ovario ovoideo, 1.5 mm. longo, apicem versus glandulis paucis breviter stipitatis instructis, stylo ± 4 mm. longo; fructibus ± 1 cm. diametro, glabris, seminibus numerosis, 2.5 × 2 × 0.4 mm., minute reticulatis.

NETHERLANDS NEW GUINEA: 9 km. NE. of Lake Habbema, *Brass 10876* (TYPE), Oct. 1938, alt. 2650 m., sunny situation at base of landslip (large shrub with violet flowers).

In the outline of the leaves and the straight prickles this species suggests *S. Gibbsiae* J. R. Drummond; in *S. oligolobum,* however, the leaves are very much larger, the prickles fewer, the tomentum denser and, particularly on the lower leaf-surface, mixed with stipitate glands, the inflorescence compound, and the fruit has many more seeds. The stalked coarse hairs forming a thick and loose tomentum give the impression of a thicker leaf than where the hairs are sessile (and usually finer); at the same time both leaves may be similar in texture and thickness.

Solanum trichostylum sp. nov.

Frutex usque 2 m. altus; ramis sensim glabratis, ± 4 mm. diametro; ramulis novellis dense tomentosis (pilis stellatis, parvis, sessilibus), aculeolatis (aculeolis vix 2 mm. longis, basi 2 mm. latis, lateraliter compressis), ± 2 mm. diametro, internodiis 1–5 cm. longis; foliis alternis, firme chartaceis, 3–9 cm. longis, 1.5–4 cm. latis, ovatis, apice acuminatis vel acutis, basi saepe inaequilateralibus, cuneatis, margine subintegris vel repandis vel interdum sublobatis, utrinque costa et interdum venis aculeatis (aculeis remotis paucisque 2–6 mm. longis, rectis) vel fere inermibus, supra olivaceis et sparsim, subtus subflavidis et dense stellato-tomentosis, venis primariis utrinsecus 6–8 supra impressis, subtus prominulentibus, rete supra impresso subtus prominulente; petiolo 1–2 cm. longo, dense stellato-tomentoso interdum 1–3-aculeato; inflorescentiis 6–10-floris, dense stellato-tomentosis in sicco subflavidis, primum fere terminalibus serius in latus coactis; pedunculo 5–10 mm. longo, rhachi brevi, pedicellis ± 1 cm. longis; calyce 4 mm. longo, subcampanulato, 5-lobato, lobis vix 2 mm. longis, subtruncatis, apiculatis, apiculo 0.5 mm. longo; corolla 5-lobato, circiter 1 cm. longo, lobis late ovatis apice leviter cucullatis, utrinque stellato-pubescentibus margine tantum glabris; staminibus supra corollae basim 1.5 mm. insertis, filamentis 2 mm. longis, antheris lanceolatis, basi 2 mm. apice 0.6 mm. latis, poris apicalibus parvis extrorsis; stylo 7 mm. longo, in dimidio inferiore stellato-pubescente; ovario subgloboso 1.5 mm. diametro, glabro; fructibus ± 1 cm. diametro, apiculatis, seminibus oblique subreniformibus, 4 × 3.5 × 0.5 mm., margine minute reticulatis.

BRITISH NEW GUINEA: Central Division, Mount Tafa, *Brass 4934* (TYPE), Sept. 1933, alt. 2400 m., plentiful on clearings in the forest in the vicinity of the road (slender shrub up to 2 m. high; branches, petioles, peduncles, and pedicels purple-tinged; pale dull leaves; bright purple flowers; ripe fruit yellow); Wharton Range, Murray Pass, *Brass 4539,* July 1933, alt. 2840 m., a weed plant on forest borders damaged by fire (sparsely branched shrub 1–1.5 m. high; leaves pale; corolla purple, anthers bright yellow; soft, globose, black fruit about 1 cm. diameter).

Solanum torvoideum sp. nov.

Frutex altus vel arbor parva; ramulis teretibus ± 5 mm. diametro, novellis densissime stellato-tomentosis deinde glabratis, pilis stipitatis vel sessilibus grossis flavidis, aculeis paucis, vix 1 mm. longis, inconspicuis, internodiis 2.5–5.5 cm. longis; foliis inermibus alternis vel interdum superioribus geminatis (uno minore), fragilibus, tenuiter chartaceis ambitu lanceolatis vel lanceolato-ellipticis (5.5 –)7–16.5 cm. longis, (1.5 –)3–9 cm. latis, basi tantum leviter inaequalibus obtuse cuneatis, apice longe acutis, margine sinuatis vel irregulariter et remote lobatis, supra fulvo-brunneis, subtus leviter pallidioribus, utrinque densissime stellato-tomentosis, pilis saepissime stipitatis, venis primariis utrinsecus ± 5, supra

manifestis, subtus latioribus et prominulis, oblique adscendentibus marginem versus arcuatis, rete laxo tantum subtus in foliis majoribus manifesto; petiolo 1.2–2.5 cm. longo densissime stellato-tomentoso; inflorescentiis (in fructu 7–8 cm. longis) primum fere terminalibus serius in latus coactis, ± 20-floris, dense stellato-tomentosis, serius glabratis; pedunculo 7–15 mm. longo, furcato, rhachibus et pedicellis (1–2 cm. longis) etiam ± glandulosis; calyce campanulato, tubo 2 mm. longo, lobis 4 mm. longis, lanceolatis apice 2 mm. subulatis, corolla ± 10 mm. longa, lobis intus apice tantum pubescentibus leviter cucullatis vel apiculatis; staminibus 1 mm. supra corollae basim insertis, filamentis 1.5 mm. longis, antheris 4 mm. longis, lanceolatis sursum angustatis; ovario subgloboso minute glanduloso, stylo 6 mm. longo; fructibus globosis, ± 1 cm. diametro glabris; seminibus numerosis, 2 × 1.8 × 0.5 mm., ovalibus, fere levibus.

BRITISH NEW GUINEA: Central Division, Mafulu, *Brass 5411* (TYPE), Oct. 1933, alt. 1250 m., forest regrowths (tall bush or small tree; very few small prickles on branches; flowers white; fruit orange-brown).

This collection differs from what we take to be typical *S. torvum* Sw. in the coarse thick tomentum on both surfaces of the leaves which gives the plant a yellowish brown appearance when dry rather than pale or cinereous green which is characteristic of typical *S. torvum* Sw.; the leaves also are only slightly inequilateral at the base, and the pedicels are more robust; in the specimens at hand there are also many less flowers in the flower-cluster.

Solanum inaequilaterale Merr. Philip. Jour. Sci. 1, Suppl.: 236. 1906; Enum. Philip. Fl. Pl. 3: 426. 1923.

NETHERLANDS NEW GUINEA: Bele River, 18 km. NE. of Lake Habbema, *Brass 11590,* Nov. 1938, alt. 2200 m., occasional in open grassy second growths (spreading tree 1.5–2 m. high; flowers lavender; fruit yellow).

This specimen is a very good match for the Philippine material of this species, and both come from the same altitude.

Solanum Schefferi F. v. Mueller, Descr. Notes Papuan Pl. 1: 44. 1876.
Solanum incanum Scheffer, Ann. Jard. Bot. Buitenz. 1: 39. 1876, non Linn.
Solanum smilacocladum Bitter, Bot. Jahrb. 55: 79. 1917.

In citing the Buitenzorg Herbarium specimen *no. 9853!* (sub. nom. *S. incanum* Scheff.) we believe that Bitter was citing the type of Scheffer's *Solanum incanum,* hence the first valid name for the species is *S. Schefferi* F. v. Muell., rather than *S. smilacocladum* Bitter, even though the description is emended.

Solanum heteracanthum sp. nov.

Planta suffruticosa ± 1.5 m. alta; ramis aculeatis et fere glabris, ramulis primum pilis stellatis dense tomentosis demum glabratis, aculeatis, aculeis 5–7 mm. longis, ad basin 5 mm. attingentibus, recurvis, a latere compressis; foliis alternis vel saepe ad nodos binis et inaequalibus, 5–12.5 cm. longis, 1.8–5 cm. latis, margine angulato-sinuatis vel interdum subintegris, basi plerumque inaequaliter cuneatis vel obtusis, apice longe et sensim acuminatis, supra maturis in sicco atro-olivaceis glabris, novellis costa et venisque stellato-pubescentibus, subtus fulvo-cinerascentibus dense stellato-tomentosis, costa venisque consperse aculeatis, aculeis paucis rectis

vel leviter recurvis usque 9 mm. longis ad basin 1–1.5 mm. latis; petiolo 7–9 mm. longo, tomentoso; inflorescentiis extra-axillaribus usque 14-floris, pedunculo ± 5 mm. longo, furcato, rhachibus 2–5 mm. longis, pedicellis confertis, 7–10(–17 in fructu) mm. longis apicem versus incrassatis et angulatis, sicut pedunculo et rhachibus stellato-pubescentibus; alabastris dense stellato-tomentosis; calyce campanulato, tubo vix 2 mm. longo, lobis 3 mm. longis, abrupte obtusis apiculatis; corolla rotata, ± 11 mm. longa, 5-lobata, lobis lanceolatis extus dense stellato-tomentosis in dimidio inferiore membranis glabris conjunctis et marginatis, intus in parte superiore venae mediae interdum pilis stellatis obsitis; staminibus 5, ± 1.5 mm. supra corollae basin insertis, filamentis 2 mm. longis glabris, antheris anguste lanceolatis 6 mm. longis basi 1 mm. latis, fere a basi subcordata apicem versus sensim angustatis, poris apicalibus parvis; ovario ovoideo 1 mm. longo, glabro, stylo 8 mm. longo; fructu immaturo subgloboso, 1 cm. diametro, seminibus ± 16 reniformibus lateraliter compressis, 4 × 3 mm., margine 0.6 mm. circumdatis, minute reticulatis.

NETHERLANDS NEW GUINEA: 9 km. NE. of Lake Habbema, *Brass 10764* (TYPE), Oct. 1938, alt. 2700 m., rain forest of valley bottom (weak shrub 1.5 m. high, in a native clearing; flowers purple; fruit unripe); Bele River, 18 km. NE. of Lake Habbema, *Brass 11505,* Nov. 1938, alt. 2200 m., scrambling on an open landslip (flowers purple; fruit immature).

Among the descriptions of the New Guinean species of *Solanum* this is perhaps related to *S. Gibbsiae* J. R. Drummond; but in the latter the spines are straight, and the inflorescence 1–3-flowered. Among the species which we have seen, it is most like *S. dimorphispinum* C. T. White of Queensland. The latter, however, is larger in most dimensions, the leaves are only repand, the inflorescence is much more open, and the pubescence more compact. Our species seems best characterized by the strongly recurved prickles with broad bases on the branchlets, the angled sinuate margins of the leaves, the longer and practically straight prickles with narrow bases on the leaves (on the midrib and main primary veins of the upper surface, usually confined to the midrib on the lower surface), and the rather compact inflorescence; whether the thin margin of the seed is a good diagnostic character or only on account of its immaturity we cannot say.

Solanum acuminatissimum sp. nov. § LYCIANTHES

Frutex 60 cm. alta; ramulis sparsim pilosulis vel puberulis, internodiis 2–3.5 cm. longis; foliis geminatis inaequalibus, tenuiter chartaceis; majoribus 6.5–16 cm. longis, 2.8–7 cm. latis, ovato-ellipticis utrinque angustatis, basi oblique cuneatis, apice longe acuminatis, acumine 1.2–3 cm. longo, basi 7 mm. lato, lineari-lanceolato ± falcato, margine undulatis vel subintegris, utrinque glabris, supra olivaceis, subtus pallidioribus, venis lateralibus utrinsecus ± 6 oblique adscendentibus prope marginem arcuatis, utrinque perspicuis, rete laxo ± manifesto; petiolo sparsim pilosulo vel puberulo, 1–1.3 cm. longo; foliis minoribus 2–5.5 cm. longis, 1.3–3.5 cm. latis, petiolo 3–5 mm. longo; inflorescentiis axillaribus 2–3-floris, glabris, pedicellis 2–2.5 cm. longis; calyce (cupulari) in fructu patenti, truncato, infra marginem dentibus 3–5 obtusis, 0.5–1 mm. longis, oriundis; baccis globosis, circiter 1 cm. diametro; seminibus satis numerosis, reniformibus, in sicco vix 3 × 3 × 1 mm., distincte reticulatis.

NETHERLANDS NEW GUINEA: 15 km. SW. of Bernhard Camp, Idenburg River, *Brass 12290* (TYPE), Jan. 1939, alt. 1800 m., one example on a small clearing in mossy forest (shrub 60 cm. high; fruit green; pedicels, calyx, and lower surface of leaves tinged with purple).

This species is perhaps best distinguished by the thinly chartaceous ± sinuate-margined larger leaves with a long slender somewhat falcate acumen, the few-flowered inflorescence, and the thin calyx. It is very much like *Solanum banahaense* Elmer in that both have calyces with minute teeth (or lobes) developing just below the margin. In the Philippine material (which also has entire leaves of firmer texture) this character appears to be fairly constant, the teeth originating from 4 angles or ribs; in the New Guinean collection the character is variable, sometimes only 3 teeth are developed, and sometimes 5.

Solanum multifolium sp. nov. § LYCIANTHES

Frutex gracilis, 2–3 m. altus; ramulis 1–2 mm. diametro, teretibus, pubescentibus, pilis brevibus apice incurvis, internodiis 0.7–3 cm. longis; foliis membranaceis, plerumque geminatis interdum solitariis; majoribus (1.2–)4–9 cm. longis, 1.5–3.7 cm. latis, lanceolatis, utrinque angustatis, basi cuneatis inconspicue obliquis, apice acutis interdum obtusiusculis vel obtusis, margine integris, supra glabris, subtus costa et venis tantum pilis paucis insertis, venis primariis utrinsecus 5–7 supra inconspicuis, subtus manifestis, rete sub lente laxo manifesto; petiolo (1.5–)4–7 mm. longo sicut ramulis adscendenti-pubescente; foliis minoribus 0.5–1.5 cm. longis, 0.4–0.8 cm. latis, lanceolato-ovatis vel suborbicularibus, obtusis; petiolo brevissimo vel usque 2.5 mm. longo; floribus solitariis vel geminatis, glabris, pedicellis 0.7–1.8 cm. longis, alabastro uno tantum viso, 5 mm. longo; calyce cupulari, 2.5 mm. longo, apice 3 mm. diametro; corollae lobis 5, apice leviter cucullatis et puberulis; filamentis brevibus, antheris 3 mm. longis, lineari-lanceolatis; pistillo minuto; fructibus globosis, ± 7 mm. diametro, seminibus ± 15, 2.5–3 mm. longis latisque, 1.5 mm. crassis.

NETHERLANDS NEW GUINEA: 6 km. SW. of Bernhard Camp, Idenburg River, *Brass 12907* (TYPE), Feb. 1939, alt. 1150 m., common in a rain forest gully (very slender tree 2–3 m. high; fruit red; one white flower-bud).

A species easily recognized by its relatively small and very thin leaves, short internodes, and mostly solitary flowers.

Solanum belense sp. nov. § LYCIANTHES

Frutex parvus; ramis cinereis, glabris, ramulis novellis dense puberulis demum glabratis, 1.5–3 mm. diametro, internodiis 1.5–3 cm. longis; foliis tenuiter chartaceis, plerumque geminatis suboppositis, interdum solitariis, majoribus 4.5–15.5 cm. longis, 2.5–5.5 cm. latis, late lanceolatis, apice obtuse vel acute acuminatis, basi oblique cuneatis, margine integris, utrinque glabris, novellis subtus costa venisque puberulis mox glabratis, venis primariis utrinsecus 6–8 supra manifestis, subtus prominulis, adscendentibus, marginem versus arcuatis, rete laxo supra inconspicuo subtus distincte manifesto; petiolo 0.5–1.5 cm. longo, ± puberulo; foliis minoribus 1–3.5 cm. longis, 0.5–1.8 cm. latis, lanceolatis vel elliptico-lanceolatis, basi plerumque obliquis, apice obtusis vel acutis, glabris, venis primariis ± 4; petiolo 3–5 mm. longo; inflorescentiis inter bases petiolorum insertis, glabris; floribus solitariis vel 2–6-fasciculatis, fasciculis interdum

pedunculo brevissimo vel pulvillo insertis, pedicellis usque 2 cm. longis; calyce cupulari, 3 mm. longo, apice 3 mm. diametro; corollae tubo 5 mm. longo, lobis ± 1 cm. longis, 4 mm. latis, acutis, extus apice cucullato et margine dense puberulis; staminibus tubi corollae apicem prope insertis, filamentis 1.5–2 mm. longis, antheris 3 mm. longis, oblongis apice tantum paullo angustatis; ovario ovoideo, 1.5 mm. longo, stylo 7 mm. longo; fructu non viso.

NETHERLANDS NEW GUINEA: Bele River, 18 km. NE. of Lake Habbema, *Brass 11223* (TYPE), Nov. 1938, alt. 2300 m., Fagaceae forest, common in moist semi-shade (small shrub; pedicel and calyx violet; corolla white).

Only one branch seems to have any perfect flowers, the rest are all staminate; in the latter the filaments are a little longer than in the perfect ones.

Solanum acuminatissimum, *S. belense*, and *S. multifolium* are all closely related. The first appears to be easily separable on its somewhat undulate, long-acuminate leaves, and slightly dentate calyx, the latter character is not present in either of the other species. For the most part, *S. belense* has more pubescent branchlets, entire, narrower and more shortly acuminate leaves, and more flowers in a fascicle. These are fastened to a slight swelling or a very short peduncle situated between the bases of the petioles of each pair of leaves. *Solanum multifolium* has very short internodes, and on the average much smaller leaves than the other two. All three species have thin leaves and calyces, but in the last species the leaves are seemingly more translucent than in the other two.

Solanum rostellatum sp. nov. § LYCIANTHES

Planta suffruticosa, ± 1 m. alta; ramulis teretibus, glabratis, 1–3 mm. diametro, novellis dense hirtellis, pilis simplicibus pluri-cellularibus, internodiis 1.5–3 cm. longis; foliis saepe majoribus cum foliis minutis geminatis, majoribus 4–9 cm. longis, 1–3.5 cm. latis, chartaceis, late oblongis vel lanceolatis, basi ± oblique cuneatis vel obtusis, apice subabrupte acuminatis vel rostellatis, acumine 8–15 mm. longo basi 4–5 mm. lato, integris, in sicco atro-olivaceis, supra glabris, subtus costa et venis primariis ± hirtellis, venis primariis utrinsecus 5–6 curvatim adscendentibus prope marginem arcuatim conjunctis, rete utrinque manifesto; petiolo 5–9 mm. longo, ± hirtello; foliis minutis 4–8 mm. longis, 2–4 mm. latis, suborbicularibus, subsessilibus; inflorescentiis axillaribus, 1–2-floris, pedicellis usque 2 cm. longis, sparsim hirtellis vel fere glabris; calyce cupulari, truncato, 2 mm. longo, apice 3 mm. diametro, consperse pilosulo vel glabro; corolla glabra, tubo 2 mm. longo, lobis 5, ± 5 mm. longis, 1.2–1.5 mm. latis, apice subacutis, margine (in alabastris) minutissime papillatis; filamentis latis et brevissimis, sub apice tubi corollae insertis, antheris lineari-lanceolatis, 4 mm. longis, basi 1 mm., apice 0.5 mm. latis, poris apicalibus parvis; ovario ovoideo, stylo 5 mm. longo; baccis non visis.

BRITISH NEW GUINEA: Central Division, East Mt. Tafa, *Brass 4135* (TYPE), May 1933, alt. 2100 m., common on roadside in tall foothill forest (weak shrub about 1 m. high; leaves dull green on purple petioles; corolla purple, anthers bright yellow).

This species might be compared to *Solanum cladotrichum* Bitt., but the latter is a high-climbing liane with gradually acuminate leaves, considerable pubescence and small flowers; our species is a small shrub with some-

what abruptly acuminate leaves, the pubescence (unbranched hairs) is scanty occurring chiefly on the younger branchlets, the midrib and veins of the lower surface of the leaves, and very few hairs on the pedicels and calyx. The flowers are larger than those described for Bitter's species.

Solanum Rechingeri Witasek, Rep. Nov. Sp. 5: 165. 1908, Denkschr. Math.-Nat. Kl. Akad. Wiss. Wien 89: 602. 1913; Bitter, Bot. Jahrb. 55: 102. 1917.

Lycianthes Rechingeri (Witasek) Bitter, Abhandl. Nat. Ver. Bremen 24: 504. 1920.

SOLOMON ISLANDS: Bougainville: Kugimaru, Buin, *Kajewski 1800,* June 1930, alt. 150 m., rain forest, common (small tree with white trunk; petioles of leaves blue, darker near the base; petals blue, stamens yellow); same locality, *Kajewski 1863* (fruit 1.4 cm. long, 1.2 cm. diameter, light green-blue when ripe); Siwai, *Waterhouse 66* (small tree). Guadalcanal: Berande River, *Kajewski 2388,* June 1930, rain forest (small tree up to 10 m. high; purple petals, yellow stamens). Ysabel: Tiratona, *Brass 3314,* Dec. 1932, alt. 600 m., rain forests, common (slender tree up to 10 m. tall; pale brown bark; small bright red fruits).

This species is closely related to *S. vitiense* Seem. Just about the time of anthesis the flower-bud is 8 mm. long, and 3.5 mm. diameter (in the dried specimen); the calyx is cupular, 2 mm. high, the margin ± tufted puberulous-ciliolate, as is also the margin of the corolla-lobes; in the full-blown flower the corolla-lobes are about 8 mm. long, the tube 4 mm.; the filaments are 2.5 mm. long, the anthers 3 mm. long; the style 2 mm. long. In *S. vitiense* Seem. the flower-buds are broader in proportion to the length, and the inflorescence does not show any tendency to become racemose in fruit, as is the case in *S. Rechingeri* Witasek. In the latter species the leaf-bases are both symmetrical and unsymmetrical in the specimens cited.

Solanum impar Warburg, Bot. Jahrb. 13: 415. 1891; Bitter, Bot. Jahrb. 55: 109. 1917.

Lycianthes impar (Warb.) Bitter, Abhandl. Nat. Ver. Bremen 24: 504. 1920.

BRITISH NEW GUINEA: Fly River, 528 mile Camp, *Brass 6796,* May 1936, alt. 80 m., climbing on undergrowth trees in the river flood-bank forests (attractive purple flowers and blue fruit in axillary fascicles, fruiting calyx white).

This specimen seems to fit the description of Warburg's species reasonably well; the leaves are chartaceous and vary a little more in size (15–32.5 cm. × 5–8 cm.), the peduncle does not exceed the length of a centimeter, and the berries are oblong or slightly ovoid (7–8 mm. × 5 mm.). The calyx is cup-shaped, truncate or slightly undulate, 2–3 mm. high; the corolla tube is about the same length, the lobes 5(–6), about 3.5 mm. long, 1 mm. broad, apex slightly cucullate and very slightly puberulous; filaments inserted near the top of the corolla-tube, 1 mm. long, glabrous, anthers oblong, 2.5 mm. long; pistil sometimes minute (as described in *S. Ledermannii* Bitter) or aborted, or again normal with the style protruding beyond the stamens about 1.5 mm.

PLANTAGINACEAE

Plantago Linnaeus

In van Steenis's article, "On the origin of the Malaysian mountain flora," Bull. Jard. Bot. Buitenz. III. 13: 235. 1934, we find concerning *Plantago*

that "no species seems to be indigenous in Malaysia." Since then four species have been collected in the high mountains of New Guinea during the Archbold Expeditions. The first, from British New Guinea, reported by Pilger in 1935, was originally described from New Zealand. Now this same species (at least in a broad interpretation) and three others also with southern affinities are reported here.

Plantago trichophora sp. nov. § MESEMBRYNIA

Planta, ut videtur perennis, acaulis vel caudex brevis crassiusculus; foliis fragilibus, usque 13 cm. longis (parte superiore 3–7 cm. longa, 0.5–1 cm. lata), deorsum sensim angustatis in petiolum 2–5 cm. longum, 1.5–2 mm. latum, crispe pilosum, transeuntibus, basi paulo dilatatis ibique lana longa fulva involutis, apicem versus angustatis, apice ipso obtusiusculis, integris, trinerviis, supra consperse pilosis vel fere glabris, pilis longis, subtus nervis sparsim, costa praecipue basin versus dense pilosis; inflorescentiis usque 20, pedunculis longitudine variantibus (7–17 cm. longis), teretibus, pilosis, pilis longis, basin versus pedunculi conspersis, crispis, ± patentibus, apicem versus infra spicam adscendentibus et densis; spica 2–4 cm. longa, 5 mm. lata, densa; bracteis vix 2 mm. longis, late ovatis, obtusis, obtuse carinatis, glabris, margine sparsim ciliatis, intus basi ± pilosis; sepalis 3 mm. longis, posticis ellipticis, valde concavis, apice vix angustatis, carina crassiuscula prominula, anticis paulo angustioribus, parum inaequilateralibus, glabris vel interdum sparsim et consperse ciliolatis; corollae tubo 2 mm. longo, lobis 1.5 mm. longis, rotundato-ovatis; capsulis ellipsoideis, apice ad basim styli induratis, circiter 4 mm. longis (parte superiore 2.5–3 mm., inferiore 1.5 mm.), seminibus 4–5, fuscis, ambitu ovato-oblongis, crassis, fere 2 mm. longis, subtiliter punctatis, facie hili convexis.

BRITISH NEW GUINEA: Mount Albert Edward, *Brass 4352* (TYPE), June 1933, alt. 3680 m., common; wet slopes of alpine grasslands (leaves flat, spreading, concave, margins red).

This plant belongs to the section MESEMBRYNIA Decaisne. From the descriptions at hand we are unable to suggest a closely related species.

Plantago lanigera Hook. f. Handb. New Zeal. Fl. 227. 1864; Pilger, Bot. Jahrb. 67: 236. 1935; Pflanzenr. 102(IV. 269): 120. 1937.

NETHERLANDS NEW GUINEA: Lake Habbema, *Brass 9457,* Aug. 1938, alt. 3225 m., filling the spaces between scattered grass-tussocks on marshy slopes; 11 km. northeast of Wilhelmina-top, *Brass & Meyer-Drees 9819,* Sept. 1938, alt. 3400 m., alpine grassland, occasional flat rosettes on sandy banks of a stream; 2 km. east of Wilhelmina-top, *Brass & Meyer-Drees 10220,* Sept. 1938, alt. 3800 m., alpine grassland, scattered along banks of a stream.

In reporting *Brass 4646,* Pilger pointed out that it varied somewhat from the New Zealand material. These collections vary even more, particularly in size. The plants are 4.5–16.5 cm. in diameter with leaves 1.5–8 cm. long, and 0.4–1.8 cm. broad; the pubescence of the leaves is variable, in some plants appearing only on the lower surface. We have considered *P. lanigera* var. *Petriei* Cheeseman for these collections, but the leaves are even larger than described there, and numerous. In the collection from Lake Habbema the peduncles are glabrescent, sometimes having only a few scattered hairs.

Plantago stenophylla sp. nov. § OLIGANTHOS

Planta parva, acaulis; rhizomate valde verticali, crasso vel crassiusculo, radice primaria non visa (probabiliter demum nulla), radicellis robustis, elongatis (usque ad 8 cm. longis); foliis numerosis, rosulatis, sub-erectis vel adscendentibus, anguste linearibus, 1.5–4 cm. longis, 0.7–2 mm. latis, integris vel remote et minute dentatis, margine ± revolutis, apice obtusis, glabris, crassiusculis, supra costa impressa, subtus prominula, basi paullo dilatatis ibique lana longa flavescente instructis; inflorescentiis axillaribus, primum breviter (2 mm.), demum longe (2 cm.) pedunculatis, pedunculo glabro; spicis plerumque 1-floris; bracteis ± 1 mm. longis, rotundatis, concavis, basi intus longiuscule pilosis; sepalis oblongo-lanceolatis, 2–2.5 mm. longis, obtusis, obtuse carinatis, glabris; corollae tubo 2 mm. longo, lobis lanceolatis, 1.2 mm. longis; staminibus 4, antheris non visis; capsulis ellipsoideis, 8–10-spermis, circiter medio circumscissis; seminibus fuscis, 3–4-angulatis.

NETHERLANDS NEW GUINEA: Lake Habbema, *Brass 9456* (TYPE), Aug. 1938, alt. 3225 m., alpine grassland (common bog herb); 7 km. northeast of Wilhelmina-top, *Brass & Meyer-Drees 9920,* Sept. 1938, alt. 3720 m., abundant in alpine bog turf.

NORTHEAST NEW GUINEA: Mt. Sarawaket, *Clemens, s.n.* May 1939, alt. about 3300 m., forming sod around pond margins with *Potentilla, Gentiana* and *Carex* (flower wine-purple, minute).

Plantago depauperata sp. nov. § OLIGANTHOS

Planta pulvinata; rosulis parvis, 1–3 cm. diametro, multifoliatis, aggregatis; foliis crassiusculis, 6–15 mm. longis, 1–1.5 mm. latis, linearibus, apicem versus angustatis obtusiusculis, basi sensim dilatatis ibique lana longa fulva involutis, ceterum glabris, integris, margine angustissimo translucentibus, supra punctulatis, costa supra paullo impressis; spica ad florem unicum reducta; pedunculo 5 mm. longo; floribus perfectis; bracteis 2, ± flore vaginatim circumdantibus, basi intus pilis longis tenuibus bracteis fere aequantibus instructis, ceterum glabris, triangulari-ovatis, vix 4 mm. longis, sursum angustatis, apice obtusiusculis, obtuse carinatis, costa ± brunnescente; sepalis ovato-lanceolatis, 3 mm. longis, acutis, glabris, teneris, obtuse carinatis; corollae tubo 2 mm. longo, lobis lanceolatis, 1.5 mm. longis, ± reflexis; antheris longe exsertis; stigmate longe exserto; capsulae parte inferiore valde elongata, ± 5 mm. longa, anguste obconica, parte superiore conica, ± 2 mm. longa; seminibus 4–8, parvis, angulatis, subtiliter impresso-punctatis.

NETHERLANDS NEW GUINEA: Lake Habbema, *Brass 9199* (TYPE), Aug. 1938, alt. 3225 m., plentiful in open boggy ground (gregarious, each plant forming a separate tuft ± 1 cm. high; leaves blue-gray); 7 km. northeast of Wilhelmina-top, *Brass & Meyer-Drees 9921,* Sept. 1938, alt. 3800 m., gray-green rosettes forming the bulk of the sparse herbaceous cover on shallow soil of sandstone summits; northern slopes of Mount Wilhelmina, *Brass & Meyer-Drees 10135,* Sept. 1938, alt. 4150 m., often the chief plant on black sandstone heights.

Both this and the preceding species belong to section OLIGANTHOS Barneoud. In *P. depauperata* the capsule seems to answer the description of that of *P. barbata* var. *monanthos* (D'Urv.) Pilger; however, on comparison with scanty herbarium material from the Falkland Islands, we find the plants of the latter much coarser and of much more open habit than the New Guinean material. Whether the Falkland Islands material

is properly named we cannot say, but certainly the Archbold collections are not conspecific with it.

RUBIACEAE

Maschalodesme simplex Merr. & Perry, Jour. Arnold Arb. 25: 197. 1944.

BRITISH NEW GUINEA: Vailala River, Ihu, *Brass 914,* Feb. 9, 1926, rain forest (erect unbranched bush 5 feet high; leaves shining above; large acute stipules; inflorescence in supra-axillary clusters; fruit red, eight-angled).

At the time this species was described this specimen was unavailable for examination. Since the genus has not been reported in fruit before, it seems worth while to add a brief note. Two fruits are available, one of which has been opened. It contains 16 seeds, eight to a locule, biseriately arranged and imbricating upward. Dry fruit elliptic, 8-costate, 3–3.5 cm. long, 1.5–2 cm. diameter, minutely puberulous. Seed after being soaked irregularly subobtrigonous or subrhomboid, more or less angled, somewhat flattened and curved, hardly 1 cm. long, about 5 mm. wide at its greatest width, attached at the inner base and here somewhat pointed; radicle superior scarcely 3 mm. long, cotyledons ovate, about 2 × 1.5 mm., embryo straight; albumen thick, somewhat cartilaginous.

VALERIANACEAE

Triplostegia repens Hemsl. Kew Bull. 1899: 101. 1899; Diels, Bot. Jahrb. 62: 493. 1929; van Steenis, Bull. Jard. Bot. Buitenz. III. 13: 257. 1934.

NETHERLANDS NEW GUINEA: Lake Habbema, *Brass 9208,* Aug. 1938, alt. 3225 m., locally common on open boggy ground (flowers white).

NORTHEAST NEW GUINEA: Sarawaket, *Clemens 6325,* April 1937, alt. 1800–2400 m.; Morobe District, Upper Camp A, *Clemens 10085bis,* Mar. 1939; Ulap Trail, *Clemens 41133,* April 1940 (flowers white).

The two previous records of the New Guinean species of *Triplostegia* were based on fragmentary material. Hemsley described the plant as having repent stems, but the radical leaves were not seen. Diels indicated that, although in the plant from Sarawaket the stem was upright and much shorter than in the original which he had examined, he was of the opinion that it belonged to the same species. In the light of the material cited above we believe it is clear that the habit of the plant is closely adapted to its environmental conditions. If the roots are fairly close to the surface of the substratum, the basal part of the shoot is very short, and a pseudo-rosette of leaves develops at the surface. On the other hand, if the roots are deeply buried in the substratum the basal part of the shoot is longer depending on the distance it has to travel before reaching light and developing leaves. Possibly if the plant is in the shade longer internodes develop, the longest in the specimens at hand is 1.5 cm., but mostly they are very short (2–5 mm.); above the cluster of leaves the stem becomes scape-like with a pair of reduced leaves half way between the substratum and the inflorescence. There is considerable variation in the number of glands on the inflorescence, perhaps depending on the stage of development. The genus is known only from the Himalayas, Yunnan and New Guinea. We have reported similar ranges for *Stellaria saxatilis*

Buch.-Ham. in Don, and *Potentilla* of the *P. leuconota* complex, but the last two are also found in intermediate localities.

CUCURBITACEAE

Neoalsomitra Hutchinson

In a brief article published in the Annals of Botany, n. ser. 6: 95–102. 1942, Dr. J. Hutchinson has clearly shown that *Macrozanonia* Cogniaux is only a synonym of *Alsomitra* Roemer, both having been established on the same type-species. He proposed the new genus *Neoalsomitra* Hutchinson to take care of the rest of the species later included in *Alsomitra* Roemer.

Neoalsomitra Schultzei (Cogn.) Hutchinson in Ann. Bot. n. ser. 6: 98. 1942.
Alsomitra Schultzei Cogniaux, Pflanzenr. 66(IV. 275. I): 12. 1916.

BRITISH NEW GUINEA: Lower Fly River, east bank opposite Sturt Island, *Brass 8149,* Oct. 1936, climbing in reed swamps (flowers yellow; fruit green, indehiscent).

This appears to be the first record of this species since it was originally described on a specimen collected on the Augusta River, Northeast New Guinea.

Neoalsomitra integrifoliola (Cogn.) Hutchinson in Ann. Bot. n. ser. 6: 99. 1942.
Gynostemma integrifoliola Cogn. in DC. Monog. Phan. 3: 916. 1881.
Alsomitra integrifoliola Hayata, Jour. Coll. Sci. Tokyo 30: 121. 1911, Ic. Pl. Formosa 1: *t. 38, 39.* 1911; Cogn. Pflanzenr. 66(IV. 275. I): 17. 1916.

BRITISH NEW GUINEA: Central Division: Laloki R., Rona, *Brass 3606,* Mar. 1933, alt. 450 m., edge of rain forest, common (slender spreading climber; upper surface of leaves dull, lower shining; flowers very pale yellow). Western Division: Lower Fly River, east bank opposite Sturt Island, *Brass 8116,* rain forest, common on trees bordering swamps (liane; branchlets glaucous; leaves somewhat fleshy; flowers green). Reported by Hutchinson from Formosa, the Philippines, and Fiji.

Melothria Linnaeus

Melothria scabridula sp. nov.

Monoica, scandens; caulibus gracilibus, sulcatis, nodis sparsim pubescentibus exceptis, glabris; foliorum petiolo 1.5–3 cm. longo, supra canaliculato et marginibus minute pubescentibus, ceterum glabro; lamina tenuiter chartacea, 3–5-partita, margine subinciso-dentata, dentibus apiculatis, supra in sicco fusco-olivacea, consperse albido-scabridula et venis minute pubescente, subtus paullo pallidiora, levi, glabra vel novella venis minute pubescente, lobo terminali lanceolato, apice longiuscule acuminato, 4–8.5 cm. longo, ad basin 0.5–1 cm., in medio 1–2.3 cm. lato, lobis lateralibus 2.5–3 cm. longis, 1.5–2 cm. latis, sinu basilari late triangulari (5 mm. longo, 15 mm. lato) vel laminarum basi fere truncata; cirrhis simplicibus, gracilibus minute pubescentibus; ♂ inflorescentibus racemosis vel subcorymbosis, paucifloris (2–5-floris), pedunculo 1–1.5 cm. longo, minute pubescente; pedicellis usque 5 mm. longis; calyce campanulato, 3 mm. longo, glabro, dentibus 1 mm. longis, triangulari-subulatis; corolla 6 mm. longa, extus granulari-puberula, lobis rotundatis; staminum filamentis 2.5 mm. longis, puberulis, apice curvatis; antheris ellipticis,

connectivo apice leviter producto; ♀ solitariis in eadem axilla cum masculis dispositis; pedunculo 1.5–4 cm. longo; ovario subgloboso; calyce et corolla maris; staminodiis consperse et breviter pilosulis; stylo 3 mm. longo, basi disco cupulari; stigmatibus 3, 1 mm. longis, apice expansis complanatis, biloßatis; fructibus ± globosis, 1 cm. diametro; seminibus stramineis, obovoideis, circiter 4 mm. longis, 3 mm. latis, basi angustatis, ± complanatis, immarginatis, scrobiculatis.

NETHERLANDS NEW GUINEA: 9 km. NE. of Lake Habbema, *Brass 10621* (TYPE), Oct. 1938, alt. 2800 m., mossy forest, climbing over a stump on forest path; Bele River, 18 km. NE. of Lake Habbema, *Brass 11046,* Nov. 1938, alt. 2200 m., small climber in forest clearings (flowers yellow; fruit red).

This species is easily recognized by the deeply cut leaves, and the scrobiculate seeds, a character obvious even in the dried fruit.

Melothria belensis sp. nov. § EUMELOTHRIA

Monoica scandens; caulibus gracilibus, sulcatis, scabridulis, breviter et sparsim pilosulis vel puberulis; foliorum petiolo 1 cm. longo, gracili, densiuscule adpresse pubescente; lamina tenuiter chartacea, 4–10 cm. longa, 3.5–5 cm. lata, integra, cordata vel subhastata, apice acuminata vel interdum acuta, margine denticulata (dentibus inter se 4–15 mm. remotis) in sicco supra olivacea, scaberrima, subtus paullo pallidiore, praecipue venis scabridula vel fere levi, sinu basilari latissimo concavo, 3–6 mm. profundo vel fere nullo; cirrhis filiformibus basin versus sparsim et breviter pilosulis; ♂ racemis simplicibus vel interdum ramosis, 7–23-floris, pedunculo communi 1.8–3 cm. longo, puberulo, pedicellis 7–9 mm. longis, pubescentibus, inter se 2–4 mm. distantibus; calyce campanulato, 4–5 mm. longo et lato, dentibus triangularibus, acutis, 1 mm. longis, basi paullo latioribus, ± nervatis; corolla 5–6 mm. longa, utrinque minute pubescente vel puberula, 5-lobata, lobis late ovatis; staminum filamentis 3 mm. longis, antheris subquadratis, bilocularibus, 2 mm. longis, vix 2 mm. latis, loculis rectis, connectivo latiusculo, obtuso, ± ciliato; ♀ floribus solitariis, pedunculatis, pedunculo usque 4 cm. longo, puberulo, filiformi; calyce et corolla quam mare paullo majoribus; staminodiis 3; ovario oblongo, 5 mm. longo, 2 mm. diametro, basi angustato, apice breviter rostrato; stylo 5 mm. longo, basi disco cupulari (non annulariformi); stigmatibus 3, 3 mm. longo, apice subtriangularibus; fructibus tantum immaturis visis.

NETHERLANDS NEW GUINEA: Bele River, 18 km. NE. of Lake Habbema, *Brass 11082* (TYPE), Nov. 1938, alt. 2200 m., common in open grassy second growth forest (flowers yellow).

Melothria idenburgensis sp. nov. § EUMELOTHRIA

Monoica, scandens; caulibus glabris vel novellis consperse puberulis, sulcatis, nodis ± puberulis; foliorum petiolo 1–2.5 cm. longo, ± puberulo; lamina submembranacea, ovata, sagittata vel subhastata, 5–11 cm. longa, 2–6 cm. lata, apice acuta vel leviter acuminata, lobis basilaribus obtusis, margine remote et minute denticulata, supra scabriuscula, subtus levi, utrinque costa et nervis sparsim et consperse pilosulis, sinu basilari 1–2 cm. profundo, plerumque late triangulari; cirrhis simplicibus glabris, tenuibus; ♂ floribus solitariis vel geminatis, 5–10 mm. pedicellatis; calyce campanulato, 2 mm. longo, lobis subulatis, 1 mm. longis; corolla fauce pilosula, lobis extus ± puberulis, ovatis, acutis, 3 mm. longis; staminum filamentis brevibus; antheris subquadratis, loculis rectis, margine dorsali

minute ciliatis, connectivo latiusculo, apice brevissime producto; ♀ floribus solitariis vel interdum geminatis, pedunculo ± 1 cm. longo; ovario fusiformi; fructu ovoideo, apice breviter acuminato, circiter 1.7 cm. longo, 1 cm. diametro, in sicco longitudinaliter et irregulariter rugoso; seminibus oblongis basi paullo angustatis, 5 mm. longis, incl. 1 mm. alato-appendiculatis, 2 mm. latis.

NETHERLANDS NEW GUINEA: Bernhard Camp, Idenburg River, *Brass 14100* (TYPE), April 1939, alt. 50 m., rain forest, occasional in fringe vegetation along streams (flowers white; fruit unripe).

A species showing some similarity to the description of *M. Thwaitesii* Schweinf. (*M. zeylanica* C. B. Clarke) but fruits not angled-costate.

Melothria aff. **leucocarpa** (Bl.) Cogn. in DC. Monog. Phan. 3: 601. 1881; Cogn. Pflanzenr. 66(IV. 275. I): 101. 1916.

Bryonia leucocarpa Blume, Bijdr. 924. 1826.

BRITISH NEW GUINEA: Lower Fly River, east bank opposite Sturt Island, *Brass 8104,* Oct. 1936, in low second growths on riverbank (flowers greenish; fruit soft, red).

This collection looks very much like the scanty material we have at hand of *Melothria leucocarpa* (Bl.) Cogn., but the fruits are red, not white.

Trichosanthes Linnaeus

Trichosanthes Pulleana Cogniaux ex Harms, Bot. Jahrb. 60: 160. 1925, vel aff.

Trichosanthes papuana Pulle, Nova Guin. Bot. 8(2): 406. 1910, non F. M. Bailey (1900).

BRITISH NEW GUINEA: Central Division, Mafulu, *Brass 5347,* Oct. 1933, alt. 1250 m., climbing in low regrowth forest (numerous pendent large red fruits about 20 cm. long, 8 cm. diameter, yellow inside, seeds black).

The above cited collection (in fruit only) agrees with the original description of this species in the general shape of the leaf and the glands near the insertion of the petiole. The petiole is 4–12 cm. long, the upper surface of the leaf is scabrous; the fruit is somewhat oblong-obovoid with a smooth surface; the seeds are a little more than 1 cm. long, 5 mm. wide, flattened, slightly narrowed at one end and shallowly emarginate at the other.

Trichosanthes mafuluensis sp. nov.

Caules graciles angulato-sulcati, ± puberuli demum glabrati; foliis membranaceis, supra parce puberulis et scabriusculis, subtus molliter puberulis, interdum hic illic glandulis parvis conspersis; petiolo 3–5 cm. longo, pubescente; lamina ovata, profunde cordata, 9–20 cm. longa, 6–14.5 cm. lata, apice breviter acuminata, margine ± remote serrato-denticulata, sinu basali 2–5 cm. profundo, 1.5–2 cm. lato, truncato-obtuso, medio ob lobos basiles paullo angustato; cirrhis sulcatis ± pubescentibus, 2–3-fidis; racemis ♂ 4–8 cm. pedunculatis, plurifloris (± 15), pubescentibus et ± minute glandulosis; bracteis sub pedicellis lineari-lanceolatis, circiter 8 mm. longis, integris, pedicellis gracilibus sub anthesi erectis, ad articulationem ± 5–7 mm. longis; calycis tubo anguste infundibulari ± 2 cm. longo, puberulo, lobis 4 mm. longis, lanceolatis, integris, acutis; corollae lobis oblongis, 7–8 mm. longis, obtusiusculis, granulo-puberulis, ciliis fimbriatis; filamentis brevissimis, glabris; antherarum capitulo 3 mm. longo, faucem attingente non exserto; floribus ♀ non visis.

BRITISH NEW GUINEA: Central Division, Mafulu, *Brass 5257* (TYPE), Oct. 1933, alt. 1250 m., climbing in forest regrowth brush (corolla white).

Trichosanthes dieniensis sp. nov.

Caules gracillimi, novelli puberuli demum glabrati, angulato-sulcati; foliis membranaceis, supra scabriusculis, subtus glabris; petiolo 2–4.5 cm. longo, glabro; lamina ovata, cordata, 4.5–12 cm. longa, 2.5–8 cm. lata, apice breviter acuminata, margine inconspicue et remote glanduloso-denticulata, sinu basali 0.7–2 cm. profundo, 1.3–3 cm. lato, obtuso vel subrotundato; cirrhis gracilibus bifidis, glabris; racemis ♂ 3–5.5 cm. pedunculatis, elongatis (9 cm. longis) ± 7-floris; bracteis sub pedicellis obovato-oblongis, 3–5-lobatis vel incisis; pedicellis erectis, ad articulationem vix 3 mm. longis; calycis tubo anguste infundibulari, 4.5–7.5 cm. longo, glabro, lobis circiter 1 cm. longis, lineari-subulatis, basim versus 1–3-denticulatis; corollae lobis ± 1 cm. longis, ramoso-fimbriatis, fimbriis circiter 2 cm. longis, utrinque puberulis, fauce ± puberulo-pilosulo; filamentis brevibus gracilibus; antherarum capitulo 6 mm. longo, novello glabro, sub anthesi puberulo; floribus ♀ non visis.

BRITISH NEW GUINEA: Ononge Road, Dieni, *Brass 3898* (TYPE), April 1933, alt. 500 m., massed on a dead tree trunk (flowers white).

CAMPANULACEAE

Pratia Archboldiana sp. nov.

Planta in sicco habitu rosulata, acaulescens vel caulibus brevissimis (2–4 mm. longis); foliis approximatis petiolatis, petiolo 3–7 mm. longo, piloso vel glabrato, lamina ovato-rotundata vel subrotundata, 0.5–1.5 cm. longa lataque, membranacea vel chartacea, margine undulata vel minute dentata, supra consperse pilosa, subtus glabra; floribus solitariis, axillaribus, pedunculatis, pedunculo 2–4 mm. longo, pilosulo; ovario piloso, circiter 3 mm. diametro; calycis lobis lineari-lanceolatis, 3 mm. longis, pilosulis; corollae tubo 2.5 mm. longo, lobis 3 mm. longis, lanceolato-linearibus; antheris in tubum connatis, anticis breviter aristulatis; baccis globosis, ± 3 mm. diametro, calyce et interdum corolla marcescente coronatis; seminibus brunneis, nitidis, levibus, obovoideis, circiter 0.8 mm. longis.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass 4943* (TYPE), Aug. 1933, alt. 2840 m., under a rock wall on grassy bank of a creek, very rare (flowers red).

This specimen consists of a half dozen small plants, the largest of which is between 3 and 4 cm. diameter. Most of them are in fruit with the withered corolla still adhering to the apex, one flower-bud was found, and in this we found the anthers united in an oblique ring around the style, which character gave us the clue to the family. The species may possibly be related to *P. irrigua* (R. Br.) Benth., a native of Tasmania.

Lobelia conferta sp. nov.

Planta prostrata, parva, carnosula, glabra; ramis brevibus; foliis alternis, integris, oblongo-lanceolatis, 4–5 mm. longis, 1–2 mm. latis, apice rotundatis vel obtusis, sessilibus, basi decurrentibus, confertis; floribus in axillis foliorum superiorum solitariis; pedicellis 3–5 mm. longis, ebracteolatis; hypanthio brevi, calycis lobis lineari-lanceolatis, 1–1.4 mm. longis,

acutiusculis; corollae tubo 2 mm. longo, lobis 2 superioribus vix 2 mm. longis, inferioribus 3 vix 2.5 mm. longis, lanceolatis; filamentis in parte inferioribus liberis, superiore connatis, glabris; antherarum tubo 1.4 mm. longo, antheris 2 inferioribus apice sparsim et minute barbatis et appendiculato minuto instructis; capsula non visa.

BRITISH NEW GUINEA: Mt. Albert Edward, southwest slope, *Brass 4417* (TYPE), July 1933, alt. 3680 m., on wet grassland (prostrate plant, very rare; leaves smooth, shining; flowers very pale purple).

This species, if it is a *Lobelia,* belongs to section HEMIPOGON, but we are unable to suggest any near relationships. It may possibly belong to *Pratia,* but without fruit it is difficult to say.

GOODENIACEAE

Leschenaultia filiformis R. Br. Prodr. 581. 1810; F. v. Muell. Fragm. Phytogr. Austr. 6: 9. *t. 48.* 1868; F. M. Bailey, Queensl. Fl. 3: 892. 1900; Krause, Pflanzenr. 54(IV. 277): 108. 1912.

BRITISH NEW GUINEA: Tarara, Wassi Kussa River, *Brass 8387,* Dec. 1936, savannah forest (common herb on acid gray soil; flowers pale blue). Queensland and northern Australia.

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